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**Imagery analysis report**

# **Construction Status of Launch Control Facilities at Soviet ICBM Complexes (S)**

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Z-20045/81  
IAR-0032/81  
APRIL 1981  
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## **CONSTRUCTION STATUS OF LAUNCH CONTROL FACILITIES AT SOVIET ICBM COMPLEXES (S)**

1. (S/D) Ninety-nine launch control facilities (LCFs), referred to as type IIX silos, had been constructed at deployed ICBM complexes in the Soviet Union by January 1981. These LCFs have been deployed in three different configurations: 15 are for the SS-17 missile, 48 are for the SS-18 missile, and 36 are for the SS-19 missile. An additional ten LCF sites were abandoned in early stages of construction and backfilled. This report categorizes these configurations, provides a table showing location and construction chronology, and updates information presented in referenced document 1.

2. (S/D) From 1970 until mid-1977, LCFs were deployed in two configurations which were designated as type I and type II LCFs. Neither of these types was deployed after mid-1977. The third configuration, designated as type III, is a significantly modified LCF. The major design variants are a change in the relative position of the launch control support building to the launch control silo and an increase of approximately 2 meters in the usable depth of the silo.

### **Type I Launch Control Facilities**

3. (S/D) At type I LCFs, the launch control support building is positioned at a 45-degree angle to the long axis of the launch control silo apron (Figure 1). There are 35 type I LCFs deployed at both SS-17 and SS-19 launch groups.

### **Type II Launch Control Facilities**

4. (S/D) At type II LCFs, the launch control support building is positioned perpendicular to and offset from the long axis of the launch control silo apron (Figure 2). There are 19 type II LCFs which are deployed only at SS-18 launch groups.

### **Type III Launch Control Facilities**

5. (S/D) At type III LCFs, the launch control support building is positioned perpendicular to and in line with the long axis of the launch control silo apron (Figure 3). Forty-five type III LCFs have been identified at SS-17, SS-18, and SS-19 launch groups. This includes six type I LCFs (three at Derazhnya and three at Pervomaysk) that were modified to type III.<sup>2</sup> This modification program is continuing; however, the full extent is not known. Current activity also indicates that at least some type II LCFs will be modified to type III.

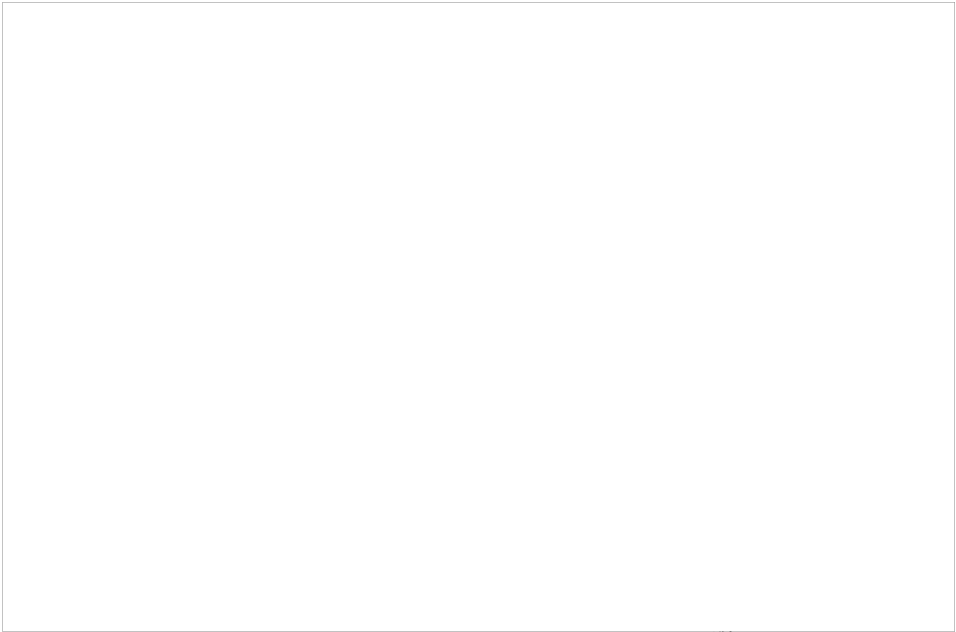
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Table 1. Construction Status of LCFs at Soviet ICBM Complexes

This table in its entirety is classified SECRET//WNINTEL

Complex	LCF	First Seen Ucon	Original Completion Date	Phase II Hardened Antenna	LCF Type	Remarks	Complex	LCF	First Seen Ucon	Original Completion Date	Phase II Hardened Antenna	LCF Type	Remarks	Complex	LCF	First Seen Ucon	Original Completion Date	Phase II Hardened Antenna	LCF Type	Remarks						
SS-17 Associated							SS-17 Associated							SS-17 Associated												
Kostroma	II	Apr 75	Dec 77	Yes	I	Last construction activity seen Feb 78	Imeni Gastello	AA	Nov 70	Nov 76	Yes	II	Kozelsk	EE	Jul 73	Jul 76	Yes	I								
	JJ	Mar 77	Backfilled	No	—			BB	Jan 76	Oct 77	Yes	II		FF	Feb 75	Jul 77	Yes	I								
	KK	Dec 75	Sep 78	Yes	I			CC	Apr 77	Jan 79	Yes	III		G	Oct 70	Mar 73	No	I								
	LL	Apr 76	Jan 79	Yes	I			DD	Mar 77	Sep 78	Yes	III		H	Feb 71	Mar 74	No	I								
	MM	Jun 77	Backfilled	No	—			EE	Jul 76	Aug 79	Yes	III		I	Jan 71	Feb 74	No	I								
	NN	Apr 78	Backfilled	No	—			FF	Nov 77	Oct 79	Yes	III		GG	Jan 74	Sep 76	Yes	I								
	OO	Sep 77	Backfilled	No	—			GG	Sep 77	Sep 80	Yes	III		HH	Nov 75	Feb 78	Yes	I								
	PP	Jul 76	Jul 80	Yes	III			HH	Nov 77	Nov 80	Yes	III		II	Jun 74	Jan 76	Yes	I								
	QQ	Dec 77	Backfilled	No	—			Construction stopped by Nov 78																		
Yedrovo	II	May 74	Sep 75	Yes	I		Kartaly	AA	May 71	Nov 75	Yes	II		KK	Aug 77	Backfilled	No	—								
	JJ	Feb 75	Aug 76	Yes	I			BB	Apr 75	Oct 76	Yes	II		LL	Jan 76	Dec 77	Yes	I								
	KK	Jul 75	Mar 77	Yes	I			CC	Jan 76	Oct 77	Yes	II		MM	Jun 77	Backfilled	No	—								
	LL	Apr 74	Jun 75	Yes	I			DD	Aug 76	Oct 78	Yes	III		NN	Sep 76	Jan 79	Yes	I								
	MM	Jul 75	Oct 76	Yes	I			EE	Oct 76	Sep 79	Yes	III		OO	Jun 77	Backfilled	No	—								
	NN	Oct 77	Jul 80	Yes	III			FF	May 77	Dec 80	Yes	III		PP	Jun 77	Backfilled	No	—								
	OO	Jun 77	Apr 79	Yes	III			GG	Jun 77	Aug 80	Yes	III		QQ	Aug 77	Backfilled	No	—								
	PP	Jul 76	Oct 77	Yes	I			Uzbur	AA	Apr 71	Oct 75	Yes		II	Pervomaysk	AA	Apr 73	Jun 75				Yes	III			
	QQ	Jan 76	Oct 77	Yes	I				BB	Jun 75	Sep 76	Yes		II		BB	Apr 73	Jun 75				Yes	III			
RR	Jun 77	Sep 78	Yes	III	CC	Oct 75	Jul 77		Yes	II	CC	Aug 73	Jun 75	Yes		I										
TT	May 77	Nov 79	Yes	III	DD	Mar 76	Nov 77	Yes	II	DD	Jun 73	Aug 75	Yes	III												
					FF	Mar 76	Sep 78	Yes	III	EE	May 75	Oct 76	Yes	I												
					GG	Nov 76	Jul 79	Yes	III	FF	Aug 73	Jan 76	Yes	I												
SS-18 Associated							SS-19 Associated							SS-19 Associated												
Aleysk	AA	Mar 75	Nov 76	Yes	II		Zhangiz Tobe	AA	Nov 70	Nov 76	Yes	II	Tatishchevo	AA	Aug 77	Mar 80	Yes	I								
	BB	Aug 75	Nov 79	Yes	III			BB	Nov 75	Nov 77	Yes	II		BB	Jun 76	Aug 78	Yes	I								
	CC	Jun 76	Oct 78	Yes	III			CC	Feb 76	Aug 77	Yes	II		CC	Sep 73	May 77	Yes	I								
	DD	May 77	Oct 79	Yes	III			DD	Jan 77	Oct 78	Yes	III		DD	Sep 74	Sep 77	Yes	I								
	EE	May 77	Oct 80	Yes	III			EE	May 77	Jul 79	Yes	III		EE	Aug 78	Jan 80	Yes	III								
Dombarovskiy	AA	Dec 70	Nov 74	Yes	II			AA	Nov 70	Nov 76	Yes	II		FF	Jan 76	Dec 77	Yes	I								
	BB	May 74	Jan 76	Yes	II			CC	Feb 76	Aug 77	Yes	II		GG	Jul 76	Dec 77	Yes	I								
	CC	Apr 75	Nov 76	Yes	II			DD	Jan 77	Oct 78	Yes	III		HH	Aug 77	Ucon	Yes	III								
	DD	Jan 75	Sep 77	Yes	II			EE	May 77	Jul 79	Yes	III		I	Nov 70	May 73	No	I								
	EE	Jul 76	Sep 78	Yes	III			FF	Dec 77	Nov 79	Yes	III		JJ	Apr 77	Ucon	Yes	III								
	FF	Mar 76	Nov 77	Yes	II			GG	Nov 77	Nov 80	Yes	III		KK	Sep 77	Sep 80	Yes	III								
	GG	May 77	Nov 78	Yes	III			HH	Jan 78	Aug 80	Yes	III		LL	Jan 77	Aug 78	Yes	I								
	HH	Oct 77	Jul 79	Yes	III			Derazhnya	AA	Apr 73	Nov 74	Yes		I		II	Apr 77	Nov 80				Yes	III			
	II	May 77	Nov 79	Yes	III				BB	Apr 73	Oct 75	Yes		I		KK	Sep 77	Ucon				Yes	III			
JJ	Oct 77	Oct 80	Yes	III	CC	Jun 73	Feb 75		Yes	III	LL	Jan 77	Aug 78	Yes		I										
							DD	Jul 73	Aug 75	Yes	III															



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REFERENCES

IMAGERY

(S) D. All applicable satellite imagery acquired through [redacted] was used in the preparation of this report. 25X1

DOCUMENTS

- 1. NPIC, [redacted] PIR-012-79, *Construction Status of Launch Control Facilities at Soviet ICBM Complexes (ISR)*, Mar 79 (TOP SECRET) 25X1
- 2. NPIC, Z-20140/80, IAR-0195/80, *Modification of Launch Control Facilities at Ponomarevsk and Ders-Jova SSN Complexes, USSR (S)*, Oct 80 (SECRET) 25X1

\*Extracted information is classified SECRET. [redacted] 25X1

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1

IAR-0032/81

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